REMARKS

Claim rejections under 35 USC 101

Claims 18-20 have been rejected under 35 USC 101 as being directed to non-statutory subject matter. The Examiner has stated that "claims 18-20 refer to a computer readable medium which is disclosed in the specification as being a modulated carrier signal," and "[s]ince a modulated carrier signal is neither tangible nor concrete, it is non-statutory." (P. 2) However, Applicant notes that claim 18 specifically recites a *tangible* computer-readable medium. Therefore, using the Examiner's own definition, there is no way that this claim element can cover a modulated carrier signal, since the Examiner admits that a modulated carrier signal is not tangible. As such, Applicant resubmits that claims 18-20 are statutory under 35 USC 101.

Stated another way, if Applicant had a claim directed to a "black widget," this claim could not read on a "white widget." This is exactly what is going on here. Applicant's claims 18-20 are specifically directed to a *tangible* computer-readable medium. As such, these claims cannot read on a modulated carrier signal, which the Examiner admits is necessarily *not* tangible. In other words, how can an explicitly limited *tangible* element read on something that is necessarily *NOT* tangible? It cannot. Therefore, claims 18-20 are statutory.

Claim rejections under 35 USC 102 as to claims 1-6, 8, and 10 over Tremblay

Claims 1-6, 8, and 10 have been rejected again under 35 USC 102(e) as being anticipated by Tremblay. Specifically, the Examiner finds the limitations of these claims in paragraphs [0068], [0070], [0064], [0067], [0095], and [0065]. Applicant notes that the Examiner has not referenced the *claims* of Tremblay at all, which is important. This is because Applicant submitted a Rule 131 declaration swearing behind Tremblay, in the previous office action response. However, the Examiner says in the present office action that a declaration is inappropriate under Rule 131

where the reference is claiming the same patentable invention, and seemingly suggests that Applicant initiate an interference proceeding. (P. 19.)

Applicant respectfully submits that the Examiner is incorrectly construing the rules governing Rule 131 declaration. It is true that a Rule 131 declaration cannot be employed where the claims at issue claim the same subject matter as the reference in question. However, that is not the case here. First, the Examiner has not even proffered any sort of explanation discussing how the *claims* of Tremblay cover the same subject matter as the pending claims of the present patent application. In this respect, it is noted that just because Tremblay discloses subject matter in various paragraphs, as relied upon by the Examiner as noted in the preceding paragraph, this does not necessarily mean that Tremblay claims this subject matter such that Tremblay's claims are directed to the same subject matter as the pending patent application's claims. By the Examiner's proposed theory, no 35 USC 102 anticipation rejection could ever be refuted by swearing behind under Rule 131, which is obviously incorrect.

Second, indeed, Tremblay's claims do not cover the same subject matter as the claims of the present patent application. As one example, look at claim 1 of the present patent application – you execute a code section using "a hardware approach to transactional memory," where this hardware approach is "implemented in hardware other than a processor." Then, if the hardware approach fails a threshold in executing the code section, you execute the code section "using a software approach to locking memory." Now, let's look at claim 1 of Tremblay as an example. This claim is a method for executing "a start transaction execution (STE) instruction." However, there is no such instruction in the claims of the present patent application, such that the claims of the present patent application are not directed to the same invention as Tremblay. Claim 1 of Tremblay "encounter[s] the STE instruction during execution of a program," which again, does not have any explicit analog in the claims of the present patent application, such that the claims of the present patent application are not directed to the same invention as Tremblay. Upon encountering the STE instruction, Tremblay's claim 1 "commenc[es] transactional execution of

the block of instructions following the STE instruction." However, unlike the claims of the present patent application, Tremblay does not explicitly claim that such transaction execution is employed *using a hardware approach*, such that it does not claim the same invention (e.g., Tremblay could use a software approach to transactional execution). Indeed, Tremblay does not claim that the hardware approach is implemented in hardware other than a processor, as the present patent application's claims do, such that Tremblay's claims are not directed to the same invention as the claims of the present patent application.

Third, in response to the Examiner's apparent suggestion to initiate an interference proceeding as to Tremblay, Applicant notes that Tremblay's patent application has not yet issued as a patent. In this respect, "if a published application contains claims to the same invention, but the claims in the published application are not in condition for allowance, then no interference is yet possible." As such, "it is not appropriate to proceed as though an interference would be inevitable," such that "[c]onsequently, **an affidavit under 37 CFR 1.131 may be submitted**." (MPEP sec. 2305.I.) For all of these reasons, therefore, the Rule 131 declaration submitted by the Examiner *has* to be considered in swearing behind Tremblay.

As a final matter, Applicant notes that Tremblay does not even disclose the subject matter of the claims. For example, as to independent claim 1, the Examiner has stated that Tremblay discloses "executing a code section relating to memory using a hardware approach to transactional memory" in paragraph [0068]. However, this paragraph of Tremblay makes no reference to any sort of *hardware approach* to transactional memory, but merely states that such transactional execution is performed – which of course could be in software as well as hardware. Since Tremblay is silent as to this point – and indeed is silent to the amended claim 1 in which the hardware approach is implemented in hardware other than a processor – there is no way Tremblay discloses the same subject matter of the claimed invention (let alone *claim* the same subject matter as the presently pending claims), such that Tremblay does not anticipate the claimed invention.

Claim rejections under 35 USC 102 as to claims 1-6, 8-10, and 18-20 over Rajwar

Claims 1-6, 8-10, and 18-20 have been rejected under 35 USC 102(e) as being anticipated by Rajwar (7,120,762). Claims 1 and 18 are independent claims, from which the remaining claims rejected on this basis ultimately depend. Applicant submits that at least as amended, claims 1 and 18 are patentable over Rajwar, such that all the claims rejected on this basis are patentable over Rajwar.

Claims 1 and 18 have been amended so that the hardware approach to transactional memory is "implemented in hardware other than a processor." Support for this amendment is found in the patent application as filed on page 8, paragraph 33, in which it is stated that "the transactional memory capability 306 may be a part of hardware other than the processor 302."

Now, the Examiner, in rejecting a different claim, claim 12, stated that Rajwar discloses a processor having transactional memory capability, as the processor 16. Indeed, Rajwar discloses a processor unit 12 that includes a lock elision circuit 24, which is apparently the transactional memory capability of Rajwar. Thus, insofar as Rajwar seemingly discloses – and at the very least, as the Examiner has admittedly interpreted Rajwar as disclosing – a processor having transactional memory capability, Rajwar cannot then disclose a hardware approach to transactional memory that is implemented in hardware other than a processor. (I.e., the Examiner has to provide a consistent interpretation of Rajwar, and cannot change his interpretation as the claims are amended.) Therefore, Rajwar does not anticipate the claimed invention.

Claim rejections under 35 USC 103 as to claim 9 over Tremblay in view of Rajwar

Claim 9 has been rejected under 35 USC 103(a) as being unpatentable over Tremblay in view of Rajwar (2003/0079094). Claim 9 is a dependent claim, and therefore is patentable at least because it depends from a patentable independent claim.

However, Applicant notes, again, that Tremblay has been sworn behind in the previously submitted Rule 131 declaration. **As to claim 9 in particular, there is no way that the**

Examiner can assert that Tremblay claims the subject matter of claim 9, insofar as the Examiner could not even find all the subject matter of claim 9 in Tremblay alone – instead having to rely upon Tremblay in combination with another reference. That is, if Tremblay does not even *disclose* all the subject matter of claim 9, as the Examiner has admitted, there is no way that Tremblay could be considered to *claim* all the subject matter of claim 9. As such, the Rule 131 declaration swearing behind Tremblay definitively has to be considered as to this and any other 35 USC 103 rejection in which Tremblay plays a part.

Claim rejections under 35 USC 103 as to claims 7 and 11 over Tremblay in view of McKenney

Claims 7 and 11 have been rejected under 35 USC 103(a) as being unpatentable over Tremblay in view of McKenney (2002/0078284). Claims 7 and 11 are dependent claims, and therefore are patentable, first, at least because they depend from a patentable independent claim.

Second, claims 7 and 11 are patentable insofar as Applicant has sworn behind Tremblay. Insofar as Tremblay cannot be considered as claiming the same subject matter of claims 7 and 11 – since the present rejection was proffered under 35 USC 103, the Examiner has admitted that Tremblay does not even *disclose* all the subject matter of these claims, let alone claim the same subject matter – the Rule 131 declaration has to be considered.

Third, Applicant submits that McKenney was commonly owned with the present patent application at the time the invention of the present patent application was made, such that McKenney cannot be considered prior art pursuant to 35 USC 103(c). Pursuant to the requirements promulgated under MPEP sec. 706.02(l)(2)II.,[1] Applicant provides the following section.

[1] This section of the MPEP states that the "statement concerning common ownership should be clear and conspicuous (e.g., on a separate piece of paper or in a separately labeled section) . . . . Applicants *may, but are not required to,* submit further evidence . . . in addition to the above-mentioned statement concerning common ownership. For example, an attorney . . . [i]n her

COMMON OWNERSHIP OF US PATENT APPLICATION 2002/0078284 AND PRESENT PENDING US PATENT APPLICATION 10/679,076 AT THE TIME OF THE INVENTION OF PATENT APPLICATION 10/679,076 WAS MADE

Applicant hereby submits that US patent application 2002/0078284 and the present pending US patent application 10/676,076, at the time the invention of patent application 10/679,076 was made, were commonly owned by, and/or subject to an obligation of assignment to the same party, International Business Machines Corporation, of Armonk, N.Y.

Therefore, insofar as McKenney is not properly considered prior art, claims 7 and 11 are allowable for at least this reason as well.

Claim rejections under 35 USC 103 as to claims 12-17 over Tremblay in view of Radovic

Claims 12-17 have been rejected under 35 USC 103(a) as being unpatentable over Tremblay in view of Radovic (2004/0098723). Claim 12 is an independent claim, from which claims 13-17 ultimately depend. Applicant submits that at least as amended, claims 12-17 are not unpatentable over Tremblay in view of Radovic.

First, claims 12-17 are patentable insofar as Applicant has sworn behind Tremblay. Insofar as Tremblay cannot be considered as claiming the same subject matter of claims 12-17 – since the present rejection was proffered under 35 USC 103, the Examiner has admitted that

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response for Application X states, in a clear and conspicuous manner that 'Application X and Patent A were made at the time the invention of Application X was made, owned by Company Z.' This statement alone is sufficient evidence to disquality Patent A from being used in a rejection under 35 USC 103(a) against the claims of Application X."

Tremblay does not even *disclose* all the subject matter of these claims, let alone claim the same subject matter – the Rule 131 declaration has to be considered.

Second, claim 12 recites that the transactional memory capability is implemented in hardware other than the processor. This limitation is not found in Tremblay nor Radovic, such that the claimed invention is patentable for this reason as well. In particular, Tremblay is completely silent as to how transactional memory capability is implemented – in software or in hardware, let alone the *type* of hardware, such as in a processor or in hardware other than a processor, as in the claimed invention.

Claim rejections under 35 USC 103 as to claims 18-20 over Tremblay in view of Rubinstein

Claims 18-20 have been rejected under 35 USC 103(a) as being unpatentable over Tremblay in view of Rubinstein (5,913,215). Claim 18 is an independent claim, from which claims 19-20 ultimately depend. Applicant submits that at least as amended, claims 18-20 are not unpatentable over Tremblay in view of Rubinstein.

First, claims 18-20 are patentable insofar as Applicant has sworn behind Tremblay. Insofar as Tremblay cannot be considered as claiming the same subject matter of claims 18-20 – since the present rejection was proffered under 35 USC 103, the Examiner has admitted that Tremblay does not even *disclose* all the subject matter of these claims, let alone claim the same subject matter – the Rule 131 declaration has to be considered.

Second, claim 18 recites that the transactional memory capability is implemented in hardware other than a processor. This limitation is not found in Tremblay nor Rubinstein, such that the claimed invention is patentable for this reason as well. In particular, Tremblay is completely silent as to how transactional memory capability is implemented – in software or in hardware, let alone the *type* of hardware, such as in a processor or in hardware other than a processor, as in the claimed invention.

Claim rejections under 35 USC 103 as to claims 12-17 and 11 over Rajwar in view of Radovic

Claims 12-17 and 11 have been rejected under 35 USC 103(a) as being unpatentable over Rajwar in view of Radovic. As to claim 11, Applicant surmises that the Examiner has made a mistake, insofar as this claim is not discussed anywhere in the office action as to Rajwar in view of Radovic, but rather is at best discussed as to Rajwar in view of McKenney. Therefore, Applicant requests that the Examiner explain his reasoning in rejecting claim 11 over Rajwar in view of Radovic, or withdraw this rejection. If the Examiner chooses to continue this rejection, the next office action cannot be final, since Applicant would not have ever had an opportunity to respond to the rejection in a non-final manner. If the Examiner does not understand this, he is encouraged to contact Applicant's representative; otherwise, if the Examiner continues to assert a rejection without any explanation or discussion thereof, and provides a final rejection as the next office action, Applicant *will* be in contact with both the Applicant's supervisor and the Director of the art unit in question so that the finality of the office action be properly withdrawn.

As to claims 12-17, claim 12 is an independent claim, from which claims 13-17 ultimately depend. As has been discussed above, claim 12 has been amended so that it recites the transactional memory capability being implemented in hardware other than a processor. By comparison, the Examiner has admitted in paragraph 22 of page 14 of the office action that Rajwar discloses this capability being implemented in a processor. Since a reference has to be consistently interpreted by the Examiner – and cannot be interpreted as guided by the claims using impermissible hindsight – this means that Rajwar does not disclose hardware other than a processor in which transactional memory capability is implemented, such that the claimed invention is patentable over Rajwar in view of Radovic.

Claim rejections under 35 USC 103 as to claims 7 and 11 over Rajwar in view of McKenney

Claims 7 and 11 have been rejected under 35 USC 103(a) as being unpatentable over Rajwar in view of McKenney. Claims 7 and 11 are dependent claims, and therefore are patentable, first, at least because they depend from a patentable independent claim.

Second, as has been noted above, McKenney was commonly owned with the present patent application at the time the invention of the present patent application was made, such that McKenney cannot be considered prior art pursuant to 35 USC 103(c). For both of these reasons, claims 7 and 11 are patentable over Rajwar in view of McKenney.

Conclusion

Applicants have made a diligent effort to place the pending claims in condition for allowance, and request that they so be allowed. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Mike Dryja, Applicants' Attorney, at 425-427-5094, so that such issues may be resolved as expeditiously as possible. For these reasons, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

June 26, 2007
Date

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